GETTING IN THE GROOVE:

THE RECORDING STUDIO PROCEDURAL GUIDE

ADRIAN CARROLL

QUEENSLAND CONSERVATORIUM

GRIFFITH UNIVERSITY

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Leroy Bath, Edie Burrows, Chris Fletcher, Naomi Ham, Tony Harper, Kajus Kazokas, Tequila Ray Max, Wayne Miller, Warren Mills, Jeremy O'Connor, Ben Quinn, Ian Taylor.

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Abstract: This paper examines time management in the recording studio from the perspective of the music producer. The paper is presented in the form of a guide that will provide a common language to music clientele and technical personnel to help achieve the best possible creative outcome. The research for the guide combined the author's experience, literary evidence and external assessment to work towards establishing a practical industry resource. The result of the study explored how the success of any recording project can be forecast before valuable resources are committed. The feedback from the survey group was positive and some professionals recognised an immediate application for the procedural guide, which exceeded the author's expectations.

INTRODUCTION

Recording sessions can take a variety of forms depending on the artiste and budget and with this diversity there is an underlying organisation that is important to accomplish a successful project. Time is money when hiring expensive studios. Finding ways to maximise productivity in the studio environment is important for producers, artistes, record companies and engineers. This paper will concern itself with putting into place procedures to ensure an effective recording outcome.

The application of procedures has always been vital when dealing with a tight budget and time frames but larger budgets need just as much attention. The production schedule, personnel and the processes in recording all contribute to being able to get the job done to everyone's satisfaction. This paper will examine at the various elements in the recording process and make a step by step guide to ensure creative energies and valuable time are not wasted in the process.

After many years working in the music industry in Australia and internationally the author has realised that the use of time management skills would have been invaluable to him personally in the many areas of recording. This paper therefore will benefit future projects especially in working with clients and personnel in the music industry.

RESEARCH METHODOLOGY

Other professionals in the recording industry were emailed a summary of the paper in point form. Additional information was collected via email and telephone to discuss the inclusion of the content. The survey group included producers, engineers, professional studio musicians, and musicians who use facilities to record their works. The feedback acted as a validity check for the procedural guide and enriched the study while ensuring any important aspects that were raised were included.

The data from the survey group was incorporated in the paper where pertinent and cited. All participants have been acknowledged for their contribution. The context in which the material was used was substantiated with the contributor before inclusion. Permission was obtained before any material was used in the research.

The most important questions with regard to the procedural guide are:

1) What time management techniques are used in the recording session?
2) What pre-production is used before the recording?
3) How do you ensure the recording project meets the expectations of time, money and creative outcome?

LITERATURE REVIEW

Some of the literature on the subject of time management in recording is found in *Modern Recording Techniques* (Huber, D.M., Runstein, R.E., 1995), *The recording studio handbook* John Woram (1981) and *Handbook for sound engineers, the new audio cyclopedia* Davis, C., with Jacobson, L. (1991) under the headings of pre-production and session procedure. The subject of time management is not treated as a discipline. Not many guide books have been written on time management in the recording studio and it is the aim of this author, based on his experience in recording industry and research, to present a procedural guide which will benefit all those involved with recording. Production techniques greatly influence the recording process and will dramatically influence the time spent in the studio. This is because the ability to record effectively in itself is a time saving exercise. These recording techniques and choices are individual to the recording team and are subjective in nature so they will be excluded from this paper to make room for general principles that can be applied by all.

Modern Recording Techniques (Huber, D.M., Runstein, R.E., 1995) covers most of the basic information. It advises that it is important to get to know everyone involved in the recording at the outset and to discuss expectations of the session. The organisation of track sheets, song positions and other relevant information is necessary for the smooth running of what takes place in the studio. *The recording studio handbook* has valuable advice on slating. John Woram (1981) notes:

> Takes are numbered consecutively. Usually, each new song begins with "take 1." However, it is often a good idea to continue the count for the duration of the session. Thus, if one song ends after take 10, the next one will begin at take 11. This is a great help in recording unfamiliar music, or for tapes that will be sent to other studios for additional recording or mixing. If there is only one "take 17" on the entire collection of the master tapes, there can be no question as to the identity of each take (p. 386).

This purpose can be served by the use of the absolute time function on digital tape recorders but the concept of individual identification of takes remains prudent. John Woram also suggests having someone count the tempo in an isolation booth for sections where the drums are not included. Where click tracks are not employed this would be practical device. The use of a click track has been suggested as not only a good production tool but as a time saver by giving you the ability to copy and paste material to use in repeated sections of the song, (W. Mills, personal communication, October 25, 2005).

The literature cites engineers and producers to validate key concepts. For example, (Cunningham 1996). George Martin states that he did not have to talk to his engineer, Geoff Emerick because they had worked together for so long (p. 125).

Tobler, J., Grundy, S. (1982). *The record producers* a compilation from the BBC radio 1 series and Cunningham, M. (1996) *Good vibrations: a history of record production* have both been utilised for the purpose of substantiating the content of the procedural guide.

PROCEDURAL GUIDE FOR THE RECORDING STUDIO

CLIENTELE

The process of recording is complex because of the personalities involved: the engineer focusing on the technical aspects of the recording and the artiste on the performance. The ability of the producer is to creatively draw the best from these individuals. To streamline the creative process in the studio the technical side of the recording needs to function automatically. The engineer should know how to do his job so well that he can give his attention to the artistes and producer.

Before beginning a recording the musicians need to be briefed to understand what is involved and the expectations of each person in the project. As we spend time with the musicians we find out what they like to listen to and this will be a valuable resource. Being familiar with client tastes will also add to client comfort (B.Quinn, personal communication, November 1, 2005). The client tastes will be used as a resource to give common ground to discuss direction. "As a producer or engineer it is highly important to establish rapport with each member of the band" (B.Quinn, personal communication, November 1, 2005) and spending time at live performances can be a good icebreaker.

In the process of recording we are engineering people. What the client thinks is more important than your own perspective. George Matin cites in Tobler, J., Grundy, S (1982):

> It's no good bullying people, because they dig their heels in and do the opposite - you have to lead rather than drive, and in fact, tact is one of the absolute requirements of a record producer. You've got to make the guy think that he thought of whatever it was in the first place, and you can't go around in a studio saying, "What a clever chap I am for thinking of this", because that immediately destroys the ego of the person with whom you're working. I still say that the artist is much more important than the producer, and he's your spearhead, so you've got to build him up, and thus, if you have a good idea, try to make him think of it, I'd rather do that and get a really good record than to end up with a rotten record for which I take the credit (p. 116).

Anticipating the client needs before they are conscious of them is an important facet of the process in recording and we can achieve this by working ahead and anticipating client needs. The excitement of the project must be maintained throughout and the clientele must feel involved all the way.

PRODUCTION SCHEDULE

The first step for a producer in accepting a job of a recording is deciding if they are willing to do the work to make the recording shine. Ian Taylor reminds us to make sure we pick the right personnel for the job. Are they experienced with our style of music? (personal communication, October 28, 2005). Before accepting the assignment the engineer and producer need to satisfy that their requirements are being met regarding the session. They will need to ask a lot of questions to ensure the clients are aware of what is required for their standard of production. If the producer decides to go ahead and produce the recording the budget will be very important. The budget will determine the production standard and the facilities that will be used. It will also dictate the time available recording in the studio. The producer and artiste will need to discuss the amount of recording and how fast the recording process will be and incorporate this in the production schedule.

Choosing the appropriate facility to match the client's needs is a crucial. For example, if a loud drummer is to be recorded the size of the room will be very important. The acoustics of the rooms will need to be assessed and recorded work previously done in the studio will need to be listened to. The atmosphere and amenities of the facility will be another factor. For example, have the musicians somewhere to relax while the recording is in progress? Food is sometimes an afterthought in the studio and to get the most out of the team food can be a vital factor for success. It is in everyone's interest to discuss possible disruptive issues in advance like intoxicants, if you cannot maintain a drug free environment they need to be used in moderation otherwise the project's budget could be wasted (W.Miller, personal communication, October 19, 2005). Another disruption can come from visitors and only those concerned with the creative process should be admitted unless they understand the work situation and complement the creative process (T.R.Max, personal communication, October 28, 2005).

A part of being prepared to do a production is to check the recording equipment before the session. If using analogue gear the tape machines will need to be lined up and the tape stock checked. The amount of equipment will be assessed to ensure the studio satisfies the criteria. The condition of the studio will determine how much testing you will need.

The actual production schedule is not difficult to compose. It will develop as the budget and the workload is agreed upon; once the hourly rate of the facility is put into the equation the number of hours recording can be predicted. This is done by taking into consideration set-up time and the time of recording needed for each song. The engineer will know his work pace better than anyone else but allow time for any problems that might arise. Large budgets with ample time available in the studio still require time management to keep the session vibrant, as too much time in the studio can be detrimental to the creative flow of the session.

PRE-PRODUCTION

It is the responsibility of the producer to make sure all the sound sources are worthy of recording before the day and providing alternatives if any deficiencies are evident. Live equipment doesn't necessarily equate with recording. Relying on studio equipment to rectify problems is heading for trouble. Chips Davis, with Linda Jacobson (1991) cites, "Equalisation in order to correct problems from microphone placement, leakage, reflections and unfavourable acoustics severely limits the engineer's creative boundaries" (p. 1141). Is the instrument of a sufficient standard or condition? Obvious things can be done like changing strings and drum skins but we need to ask these questions even when working with professional musicians. Instruments can be hired to fill most situations at very reasonably rates. If the sound of the instrument is great without looking for a sound you have saved money.

Pre-production will always be at the top of the list for time management. It will be beneficial to get a demonstration of the songs to be recorded for organising the session. If you cannot get a recording see the live shows for this purpose. It will identify if the arrangements work or if any addition work needs to be done on the instrumentation. This recording will help you visualise the end product and indicate what is needed for pre-production. If overdubs are planned that are not a part of the live performance they are sometimes an after-thought and totally unrehearsed. Audition any additional instrumentation against the song to see if it works before going into the studio.

RECORDING PERSONNEL

The Producer

The producer's role is to keep an overall creative perspective on the development as it unfolds. The ability to ensure the production process will work in the studio is a discipline that is learnt by experience. The additional ornamentation the producer brings to the project could involve arrangements of other instruments, sound effects and a variety of production techniques.

George Martin in Tobler, J., Grundy, S. (1982) explained:

> I think my producing career really started with those comedy records, because I was getting very involved on the floor instead of just being in the control room saying, "Yes, that's nice" or, "You're singing a bit flat"'. It became a matter of going through material and saying, "Let's not do this. If we put a bit of music behind this, or have the sound of a band saw coming in from the left, it'll make it much better". It was creating before we got into the studio at the stage, and really that's what a producer is up to - he's sort of masterminding the concept of what it's going to sound like before it actually happens (p. 108).

The producer will find the capacity to increase efficiency in all stages of recording by using additional personnel. Recording is not a one-man job. When talking about Bill Price, Chris Thomas in Cunningham (1996) explained:

> Bill was always great at helping me achieve ideas, especially when I was stuck. It was in these situations where he was very thorough and because I didn't have to think about those things, it left me the space to get on with producing (p. 245).

Long hours coupled with continuous playback can tax the person who has the job of sitting in close proximity to near field monitors and when working long hours critical listening can become impossible. Working in a team creates the possibility to break the workload giving the audio engineer a rest. Even if the producer is not an engineer this can still be achieved once the mixing console has been set up. In some instances the producer can work more closely with the artiste in this situation.

Sound Engineer

The sound engineer needs to keep a smooth flow during the recording session while in charge of the technical aspect of the recording. This will involve adjusting microphone placement, headphone mixes and creating a conducive atmosphere when a lot of activities are going on at once. In this situation it is very important to be prepared before the musicians arrive. This point is also stated in Levine, M (2005) by Ben Wisch:

> Try to have everything set up before the musicians get there. When you open that template up and put everything into input and everything into record, you should be able to get a signal from the bass-drum mic, the snare-drum mic, the room mic — all the way around. And also make sure everybody's headphones are working. Inevitably, things will happen anyway during the session, things can be up and down. But the more preparation you do ahead of time, the easier it is. Especially when you're producing and engineering yourself (para. 55).

Working as engineer/producer in the studio environment can be fast work and if doing the job solo you will need to be ready to run around thinking ahead of everyone else in the studio. Knowing the gear inside out is the only way to be up to speed. In getting to know the gear Michael Cooper spends one or two days a months reading his owner's manuals and states " If you want to be a speed demon in the studio, you have to study, study, study. Be the perpetual student because it will pay off in spades" Levine, M (2005)

Programmer

Programming is a very important production tool and is usually done in Pre-Production creating a dramatic cost saving. Project studios can deliver a professional sound where acoustics and space are not a factor in the recording. One could argue that the biggest time management device in the current environment is being able to record most of the project at home before approaching the studio.

Studio Musicians

Hired studio musicians who are expert in their field can greatly enhance a performance and reduce recording time by improving musicianship and the sound of the recording. A widely used addition to a composition is the keyboard, backing vocals and horn sections, strings, percussion, choir and full orchestra. Jeremy O'Connor stated that is important to hire studio musicians when they are needed. In his case as a bass player he is often hired with the drummer and is required to wait around while the drums are set up. This is costly for the production and by the time he is required to record he is drained from anything up to a three-hour wait. (personal communication, October 27, 2005).

Drum Technician

A drum technician is cost effective in the studio and worth the money for the result. Tuning acoustic drums is a science in itself and should not be attempted by engineers and producers. When the player is capable of this task the job becomes straightforward but this will not always be the case. Huber & Runstein (1995) state the following:

> The larger-than-life driving sound of the acoustic rock drum kit that we've all become familiar with is the result of an expert balance between playing techniques, proper tuning and mic placement. Should any of these variables be lacking, the search for that perfect drum sound could prove to be a long and hard one (p.135).

Second Engineer

A microphone technician or second engineer can save time by working in the studio allowing the engineer and producer to make decisions in the control room. This additional help will be a great time-saver in setting up equipment and meeting the artiste's needs. This is also great work experience for personnel wanting to get into the industry and very cost effective. Make sure the assistant is fully trained and certified (W.Miller, personal communication, October 19, 2005).

THE SESSION

Before setting up decide on the electronic routing of the session. Running microphone leads from the wall to the microphone stand will save confusion because a mess of leads will gather at the wall panel making it very difficult to trace any problems.

Keep a track sheet for each song with song locations this point alone can save time and minimise disorganisation. Make notes on everything (W. Mills, personal communication, October 25, 2005). If analogue tape is used record a pulse at the beginning of the tape so that all time locations will be accurate. P. White gives valuable advice when using a number of tape machines:

> When working with multiple modular digital mulitrack machines (MDMs), the relatively slow lockup time of the machines can become very frustrating when you move on to doing vocal overdubs and punch-ins. To make things easier, do a rough mix of the tracks you've recorded so far onto a spare track on the tape you're using to record the vocals. You can now switch off the other MDMs and just use this 'slave reel' to get the vocals and any other overdubbed parts just right. Once you've got the takes you need, mute or record over the rough guide track, put the other tape machines back on line and mix as usual (p. 16)

Communicate to the musicians before you start recording to leave silence at the end of the song and to allow time for the instruments to ring out. This will avoid confusion in assuming that the musicians will know what to do instinctively. It is time-effective to record the rhythm section together first with as much of the instrumentation as possible to establish the 'feel' of the music (T.R.Max, personal communication, October 28, 2005). It has also been suggested that the bass player be in the room with the drummer or have visual contact to create a tighter rhythm section (J.O'Connor, personal communication, October 27, 2005). If a good isolation booth is available the main vocal can be recorded with the rhythm section and in some cases a better performance be achieved.

MIXDOWN

Mixing down the music is a very important area for time management as the right techniques can save time. The first step in the mixdown process is to make sure the correct parts have been chosen and material not wanted is removed. It is very important to have at least one reference level and to make adjustments at a specific monitor level (I.Taylor, personal communication, October 28, 2005). This is understood when we realise that a decrease in volume decreases the bass creating an ever-changing frequency balance. Thought should have been given during recording in regard to the stereo image and components recorded in stereo where possible. Some producers will duplicate parts up to five times to be spread around the stereo field. These parts need to be recorded at the same time so the talent remembers what they did (W. Mills, personal communication, October 25, 2005). The individual equalisation should be done with all the tracks playing rather than soloed. Woram (1981) "By the time of the mixdown session, it really makes no difference what each isolated track sounds like" (p. 392). This concept can be applied in recording to ensure that the new sound will fit the overall picture we are creating.

Once the instrumentation has been added music-to-voice level will be important. Make sure the vocal can be heard at the start of each section so that the listener feels they can hear the words. Once established, the listeners' brain will be satisfied that the words can be heard easily even if the vocal recedes into the music from there. The vocal level should be listened to in a number of environments to make sure it is correct. Small speakers are the best for balance as they represent the midrange frequencies absent of bass and treble. This helps because it will sound good on very small speakers and larger speakers as well. When we take this approach on the overall mix it produces a very tight fitting midrange balance and this effect will make the recording very strong on all systems. Different mixes can be created for different parts of the song to optimise the balance and these added together to form the whole. Mono-compatibility is also important for universal application of the mix.

After long mixing sessions the ability to differentiate becomes less and less. Breaks are very important and if possible the set-up should be done on a separate day so the mix can be done with judgement. It is also a good idea to do alternate mixes so if there are concerns about the vocal level the final choice can be made at a later date. Ideally the mixing console could be left set up for these decisions to be made.

MASTERING

You need to ask yourself, 'Does the recording need mastering?' (I.Taylor, personal communication, October 28, 2005). It is possible to get it right in the mix without mastering. This can be the case with sequenced music where sounds are manufactured to work well. If the project is mainly acoustic in content then it usually will benefit by the mastering process. Mastering could be an extension of the recording process by the production team. Having a different person to do the mastering gives you a fresh ear on the material if you can trust them with your recording. Once the order is established each track will be treated to complement the whole and the overall equalisation will be adjusted to optimise its playback potential.

CONCLUSION

If the procedural guide were used in the deployment of time management in recording it would be highly unlikely to have an unsuccessful project. There is more to a recording than just the sound and during the course of the study it has become evident that the mixing of creative and technical personnel is vital to making the best possible outcome. One is no more important than the other and it is the producer's job to make this marriage work.

It is imperative to note that the organisation of the music, equipment, personnel and facilities are the key to maximise productivity. Productions need to be assessed to determine whether they meet the requirements of the production standard before the contract is signed. The procedural guide could act as a step-by-step guide in quality control and to ensue time management procedures are being followed. The guide, in a commercial form, could also be presented to clients and personnel for pre-perusal to develop a common language and this will set the scene for a conducive atmosphere in the studio.

The feedback from the survey group was positive and all participants expressed that the procedural guide was a useful professional tool in the industry and there were possibilities of incorporating the ideas presented into course work. The author's expectations of the ramifications of this study are greater now than they were at the outset. This study will continue as there is obviously a large pool of untapped colleges and future contacts to add to the database. Time management in the recording studio should be treated as a discipline whereas in the literature it has been treated as a side issue. In the music industry time is money.

In the words of George Martin in Tobler, J., Grundy, S. (1982):

> Obviously, it's up to the producer not to allow records to go on forever, but I guess it's all part of the insecurity of our times. I think that if people got their ideas together outside the studio, they could make very good records without having to waste too much money (p. 122).

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